

REMARKS:

Claims 10-18 and 21-25 are pending in the application, with claims 1-9, 19 and 20 cancelled as a result of the Restriction Request of April 8, 2009, and new claims 24 and 25 being added with this response.

Claim 12 was objected to because the word "least" was misspelled. The claim has been amended to correct the spelling.

Claim 17 was objected to because the word "proceeds" was used incorrectly. The claim has been amended to correctly use -- precedes --.

Claims 12-17 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 has been amended to recite in line 8 "the epoxy resin aggregate material into the hollow support comprises pouring the an epoxy resin aggregate...." as suggested by the Examiner.

Claim 16 has been amended to recite in lines 2-3 "to contain the composite dowel material high strength sleeve and the aggregate material in the hollow support structure."

In view of the amendments above, all objections to the claims and rejections under 35 U.S.C. 112 are believed to have been obviated.

Claims 10, 11 and 18 were rejected under 35 U.S.C. 102(e) as being anticipated by Minayoshi et al. (U.S. Patent No. 6,890,461, "Minayoshi"). The Minayoshi reference discloses filling a pole interior with cementitious material with or without additional reinforcing members disclosed to be aramid rods and the like being encased by the cementitious material.

The subject claims have been amended to recite (directly or through dependency) a "high tensile strength sleeve" that is placed within the pole and then substantially filled with an aggregate material. Because there is no disclosure of a sleeve in Minayoshi, claims 10, 11 and 18 are not anticipated.

Claims 12-17 and 21-23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Minayoshi in view of Thom (German Patent No. 19625259), Minayoshi as applied to claim 10, Minayoshi and Thom in view of Hillyer (U.S. Patent No. 3,477,979) or the combination of Thom and Minayoshi in view of Trimble (U.S. Patent No. 4,923,203). Either Minayoshi or Minayoshi in view of Thom are used as the primary references in making the above-noted obviousness rejections.

Minayoshi discloses reinforcing a pole by filling its interior with a cementitious material with or without additional rods and the like being set and encased within the cementitious material. Thom discloses using a sleeve that may be coated with a hardening material as a "stent" to reinforce a pole interior. The Examiner contends that one of ordinary skill would be motivated to combine the teachings of Minayoshi and Thom to arrive at the pending claims. This contention is respectfully traversed.

All of the pending independent claims recite the combination of a high tensile strength sleeve that is placed inside a pole and substantially filled with an aggregate material. Thom expressly teaches away from filing his sleeve with a cementitious material on page 1, paragraphs 5-7, of the machine translation referenced in the Office Action. There, Thom notes that the prior art involves introducing steel to a mast pipe and filling its interior with concrete (precisely what is practiced by Minayoshi) and that this is undesirable ("adverse") because electric cables may become damaged/cannot be inspected or repaired and because of the difficulty of and damage caused by introducing reinforcing rods ("Stahlarmierungen") through a hole in the pole.

Thus, the whole point of Thom's invention is to "protect the accessibility to the mast-inner" and avoid "damages" to the "mechanisms inside the mast pipe" (page 1, paragraph 7) by using an open, stent-like sleeve rather than filing the pole interior with a cementitious material.

Moreover, because Thom teaches away from filling a pole interior with a cementitious material, there would be no reason to either locate a sleeve mouth at the access opening for pouring aggregate into the pole or for closing the bottom end of the sleeve (particularly where Thom expands his sleeve to contact the corrosion area, closing the bottom would lead to an incomplete bonding of the sleeve with the pole and/or deform the expanding sleeve).

In addition to Thom's teaching away from the pending claims, as pointed out by the Supreme Court in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007) at page 418, "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." Rather, the Court stated:

[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements *in the way the claimed new invention does*...because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

KSR Int'l Co. v. Teleflex Inc., at 418-419 (emphasis added); *see also id.* at 418 (requiring a determination of "whether there was an apparent reason to combine the known elements *in the fashion claimed* by the patent at issue") (emphasis added).

The Minayoshi reference discloses (e.g., at col. 23, lines 56-67) that bend tests reveal that their methods lead to a doubling of the safety standards for pole strength. Thus, it is unlikely that one of ordinary skill would be motivated to specifically add a sleeve material to the interior of the pole first and then fill it with an aggregate material to further increase pole strength when the safety standards have already have been doubled and many likely less expensive and less labor-intensive alternatives exist for strengthening cement that simply involve adding reinforcement members to the cementitious material itself.

Accordingly, the pending claims represent a non-obvious improvement over the cite art, which both expressly teaches away from and fails to suggest in particular the inventive combination and steps claimed herein

Except for the fee due for a 3-month time extension petition, no fee is believed to be due.

Should there be any unforeseen fee or credit, please charge or apply it to deposit account 17-0055.

Respectfully submitted,



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